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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,899	10/30/2003	Steven Francis Best	AUS920030792US1	9243

35525 7590 04/16/2009
IBM CORP (YA)
C/O YEE & ASSOCIATES PC
P.O. BOX 802333
DALLAS, TX 75380

EXAMINER

HO, BINH VAN

ART UNIT	PAPER NUMBER
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2163

NOTIFICATION DATE	DELIVERY MODE
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04/16/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptonotifs@yeeiplaw.com

Office Action Summary	Application No. 10/697,899	Applicant(s) BEST ET AL.	
	Examiner BINH V. HO	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,23,25-27,37-46 is/are pending in the application.
- 4a) Of the above claim(s) 1-6,23,25-27,42 and 43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-41 and 44-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/16/2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 37-41, 44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Hitz (US 2002/0091670).

(Claims 37, 44)

Hitz discloses a computer implemented method comprising receiving a command to store a file in a file system having an inode (“on-disk inode 310”, paragraph [0053]), wherein the inode is usable to store metadata associated with the file (“The inode information 310A comprises information about the owner of a file, permissions, file size, access time, etc. that are well-known to a person skilled in the art”, paragraph [0053]); responsive to the file having a size that is greater than a block size of blocks in the file system (“For a file having a size that is greater than or equal to 64 KB and is less than 64 MB”, paragraph [0056]), storing data of the file only in an integer number of blocks (“The block number entries 0-15”, paragraph [0055]), wherein a remainder data of the file remains after storing, and wherein the remainder data is less than the block size; and placing the remainder data directly into the inode (“For a small file having a size

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of 64 bytes or less, data is stored directly in the inode itself instead of the 16 block numbers”, paragraph [0054]).

(Claim 38)

Hitz discloses wherein placing further comprises placing the remainder data in an extension area of the inode, wherein the extension area was formerly reserved for the metadata (“The inode information 310A comprises information about the owner of a file, permissions, file size, access time, etc. that are well-known to a person skilled in the art”, paragraph [0053]).

(Claims 39, 45)

Hitz discloses responsive to second remainder data of the file still remaining after the remainder data is placed into the inode, placing the second remainder data into an unused space of a first block of the file system, wherein the first block also stores data of another file, and wherein the first block comprises a last block of the another file (“For a file having a size that is greater than or equal to 64 KB and is less than 64 MB, each of the 16 block numbers references a single-indirect block. In turn, each 4 KB single-indirect block comprises 1024 block numbers that reference 4 KB data blocks. FIG. 4C is a diagram illustrating a Level 2 inode 310 comprising 16 block numbers 310B that reference 16 single-indirect blocks 430A-430C. As shown in FIG. 4C, block number entry 0 points to single-indirect block 430A”, paragraph [0056]).

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(Claims 40, 46)

Hitz discloses wherein the size is less than the block size, and wherein the method further comprises placing data of the file directly into the inode (“For a small file having a size of 64 bytes or less, data is stored directly in the inode itself instead of the 16 block numbers”, paragraph [0054]).

(Claim 41)

Hitz discloses wherein a remainder data remains after placing the data into the inode, and wherein the computer implemented method further comprises placing the remainder data into an unused space of a first block of the file system, wherein the first block also stores data of another file, and wherein the first block comprises a last block of the another file (“the 16 block numbers of the inode reference double-indirect blocks. Each 4 KB double-indirect block comprises 1024 block numbers pointing to corresponding single-indirect blocks. In turn, each single-indirect block comprises 1024 block numbers that point to 4 KB data blocks. Thus, up to 64 GB can be addressed”, paragraph [0057]).

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Inquiry

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BINH V. HO whose telephone number is (571)272-8583. The examiner can normally be reached on M-F from 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K. Wong can be reached on 571 272 1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung T Vy/
Primary Examiner, Art Unit 2163

Binh V Ho
Examiner
Art Unit 2163